



Cork
City Council
Comhairle Cathrach Chorcaí

Proposed Housing Development at
Redemption Road, Blackpool, Cork.

Design Statement



Design Statement

Proposed Housing Development,
Redemption Road,
Blackpool,
Cork.



Reddy Architecture and Urbanism

Schoolhouse Studio,
Old Carrigaline Road,
Douglas,
Cork,
Ireland

Tel: 00 353 (0)21 4362922
Fax: 00 353 (0)21 4363048
E-mail: info@rorsa.ie
Website: www.rorsa.ie

Date: 5th October, 2023
Revision: B
Issue: Issued for Planning
Status: Planning

Design Statement

INTRODUCTION

This Architect's Design Report summarizes the design approach for a new housing scheme on the site at Redemption Road, Blackpool, Co. Cork.

Client / Contracting Authority:

The Contracting Authority for this project is *Cork City Council*



Cork
City Council
Comhairle Cathrach Chorcaí



Project:

The proposed housing development will consist of a total of 54 units, comprising of 34no. Apartment Units, and 20 no. sheltered apartments at Redemption Road, Blackpool, Cork.

Design Statement

PROJECT TEAM

HG Construction Ire Ltd,

- Developer
- Works Contractor

Reddy Architecture + Urbanism

Schoolhouse Studio, Carrigaline Road,
Douglas, Cork.
Tel: +353 (0)21 4362922

- Architecture
- Master planning & Urban Design
- Landscape Design
- PSDP

Punch Consulting Engineers

Copley Hall,
Cotters Street, Cork.
Tel: + 353 (0)21 462 4000

- Civil/Structural Engineering
- Services Engineering / Infrastructure
- Traffic and Transportation Engineering
- Roads Engineering
- Environmental Engineering
- Drainage & Water Engineering

CONTENTS

- 1 EXISTING SITE CONTEXT**
 - 1.1 LOCATION**
 - 1.2 SUITABILITY**
 - 1.3 CHARACTERISTICS & AERIAL PHOTOS**

- 2 SITE STRATEGY**

- 3 DEVELOPMENT PLAN OBJECTIVES**

- 4 URBAN DESIGN CRITERIA**
 - 4.1 CONTEXT**
 - 4.2 CONNECTIONS**
 - 4.3 LAYOUT/DISTINCTIVENESS/VARIETY**
 - 4.4 EFFICIENCY**
 - 4.5 PUBLIC REALM**
 - 4.6 ADAPTABILITY**
 - 4.7 PRIVACY & AMENITY**
 - 4.8 PARKING**
 - 4.9 DETAILED DESIGN**

- 5 SITE SERVICES**
 - 5.1 STORM WATER DRAINAGE**
 - 5.2 FOUL WATER DRAINAGE**
 - 5.3 WATERMAIN DESIGN**

1 EXISTING SITE CONTEXT

1.1 LOCATION

This development is proposed on a large inner suburban site within the environs of Blackpool. The development site is located within a neighborhood centre and bounds typically social / private housing.



1.2 SUITABILITY

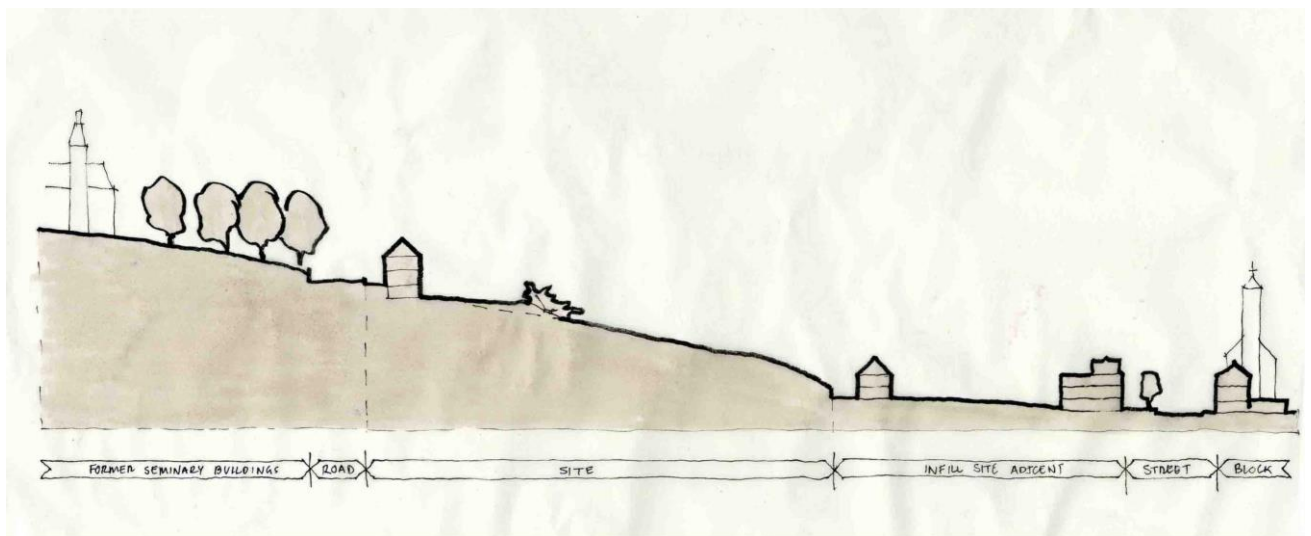
The most viable and most appropriate use of the site is for housing. The demand at this location is evident by the historical residential development in this established residential area. Further evident of its suitability for Housing is the close proximity of the site to the city centre and Blackpool village. The Site is also zoned Residential, Local Services and Institutional Uses, under the Cork City Development Plan 2015-2021. A pre-planning consultation took place on 26th July 2006. the site has been identified as most suitable for Social / Affordable Housing to be developed in tandem with the local authority or an

approved Housing Association. The site bounds local community facilities which will benefit the development.

1.3 CHARACTERISTICS & AERIAL PHOTOS

The general site is characterised by its significant change in level of approx. 30m from east to west. The upper level of the site has spectacular views over Blackpool and as a consequence much of the site is visible from across the valley.

The site is a brownfield site. There are a number of existing buildings on the upper level which included Glen View House together with a number of outbuildings and container buildings. A significant portion of the land is vacant. The Ground conditions included an element of cut, fill and possibly some original ground.



Site Section

Redemption Road

Lover's Walk/Redemption Road is an inner-suburban street. The road is defined by a mix of residential types and tenures together with surrounding institutional and other uses. Historically the former seminary, now the Farranferris Educational Campus is a dominant feature on Lover's Walk. The surrounding houses are typically terraced two-story houses.

'Glen View House' a 4-story residential building on the site which is subdivided into 12no. 1-bed apartments. Glen View House is to be demolished as part of the development.



Existing street view from Redemption Road

Hatton's Alley Lane

Hatton's Alley Lane is a cul-de-sac street consisting of typically semidetached and terraced houses. Many of the houses are owned and operated by Share Housing Association. The lower tier has an existing vehicular entrance from this lane.



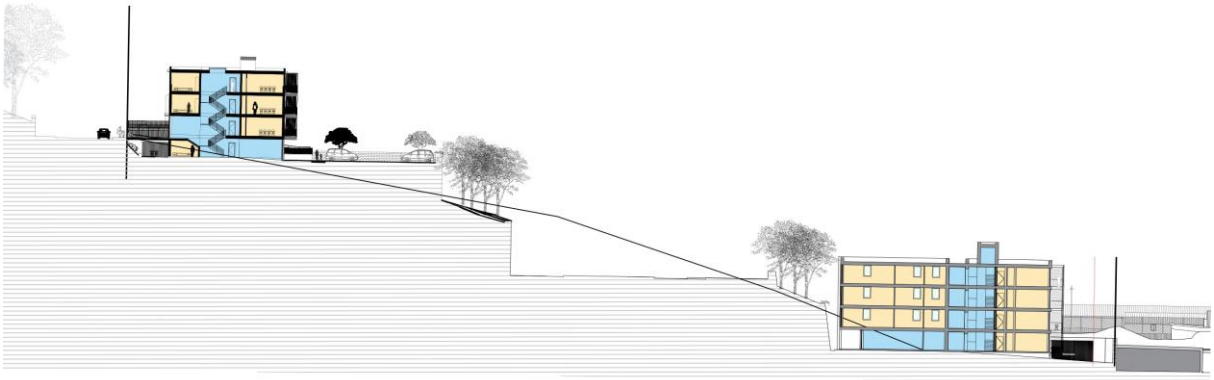
Aerial view of site

2 SITE STRATEGY

Due to the topography of the site the development land will be tiered into a number of distinct housing zones which will be characterised by distinct types of housing. The diversity of mix will consequently correspond to this tiered nature of the site. The upper tier will consist of a new apartment complex and landscaped grounds. The height of such a building respects the height of an existing building and the streetscape. The existing apartment building on the site which is 4 stories will be demolished. This currently comprises of 12no. 1-bed apartments. The number of units in the proposed complex will be 34 units comprising typically 2-bed units and some 1-bed and 3-bed units. These new units will all be standards compliant. The scale of the complex is appropriate for its eventual management.



The Design Brief for this complex was based on the requirements of a housing association. The middle tier of the development is an area for future development. The lower tier which is a back-land infill type site will consist of sheltered housing as it has immediate connectivity to Blackpool and is fully accessible in this regard. This building benefits from its immediate adjacency to Blackpool community and medical centre. Sheltered housing in turn has a ripple effect of freeing up houses elsewhere in the locality which can consequently be used by families.



The site is laid out in response to the Cork tradition of building on a level contour. Notable examples include the neighboring Farranferris Educational Campus building as well as numerous other examples in Cork. The masterplan reinforces this pattern of development for the overall site which consist of a series of layers of building and layers of soft landscaping. This in turn is the response to the landscape protection zone which the site form part of.

Boundary Conditions/Proposed Works

The site has extensive site boundary conditions. The site has road frontage to the west which fronts onto Redemption Road. This boundary is a mixture of high walls and gates buildings together with some residential scaled gates and railings. The Redemption Road boundary treatment is to be replaced in its entirety with typically residential scaled gates and railings. A new road entrance is provided.



The northern boundary is bound on the upper tier by an unused laneway, on the middle tier by an unused overgrown green area and on the lower tier the site bounds with the community centre astroturf ball court and car park. These northern boundaries are to be secured with fencing/walling.

The eastern boundary is typically bound by the rear gardens of adjoining properties. These boundaries are to be typically retained as fencing/walling with limited alterations where required.

The Southern boundary is typically bound by rear gardens of adjoining properties. These boundaries are to be typically maintained as fencing/walling with limited alterations where required. On the lower tier, the existing vehicular entrance gate and walls are to be retained.



View from the Revenue Regional Office looking over to the scheme at Redemption Road.

3 DEVELOPMENT PLAN OBJECTIVES

The Site is also zoned Residential, Local Services and Institutional Uses, under the Cork City Development Plan 2022-2028.

The lands identified for this housing scheme is currently an under-utilized brown-field inner-suburban site. The site is suitably zoned for housing with a preference for a development to be procured and managed by a housing association. In addition to providing local housing, the development of this large site would help to regenerate this part of the city and can lead to better connectivity to Blackpool. Under the city development plan, the site is contained within a landscape protection zone. The site is steeply sloping. The upper part of the site is suitable for development. A transitional zone can accommodate the significant level change and this resultant embankment can be planted to enhance the landscape protection zone.

Space Standards

Context:	Inner Suburban, Brownfield Site, Blackpool Cork
Site Area:	Total = 4,597sqm Zone 1 – Apartment Complex = 3,255sqm. Zone 2 – Area for future development – Omitted. Zone 3 – Sheltered Housing = 1,342sqm.
Building Areas:	Total = 4,391sqm Zone 1 – Apartment Complex = 3,237sqm. Zone 3 – Sheltered Housing = 1,554sqm.
Density:	Zone 1 – 60 units per acre Zone 2 – N/A Zone 3 – 42 units per acre
Mix:	Houses, Apartment Complex, Residential Centre 29 x 2-bed apartments, typically 81sqm. 2 x 1-bed apartments, typically 48sqm. 3 x 3-bed apartment, typically 92sqm. 17 x 1-bed sheltered apartments, typically 53sqm. 3 x 2-bed sheltered apartment, typically 67sqm.
% Mix	100% Residential
No. of dwellings	Total = 54 units
Car Spaces:	Zone 1: Required: 1.25 per unit Provided: 36 spaces
Open Space:	Zone 1 - 679sqm = 21% Zone 3 - 321sqm =20%
Height:	4 storey

Densities

There are extensive areas dedicated to landscaping to accommodate the significant changes in level and to satisfy the landscape protection zone. In addition, dedicated usable green areas are provided in each tiered area respectively for the use and enjoyment of the residents.

Building heights

The apartment complex is a standalone building which corresponds with the height to the existing Glenview House (to be demolished).

The sheltered housing is a standalone 4-storey residential centre.

Housing mix

The housing mix is defined by the tiered nature of the site.

4 URBAN DESIGN CRITERIA

4.1 CONTEXT

The site is laid out in response to the Cork tradition of building on a level contour. Notable examples include the neighboring Farranferris Educational Campus building as well as numerous other examples in Cork. The masterplan reinforces this pattern of development for the overall site which consist of a series of layers of building and layers of soft landscaping. This in turn is the response to the landscape protection zone which the site form part of.

4.2 CONNECTIONS

Each tier of the property has its own dedicated site entrance. The upper tier is accessed directly form Redemption Road. The middle tier in the future development will be accessed directly form Seminary Court. The lower tier is accessed directly from Hatton's Alley Lane.

While the site does not have a direct connection onto Great William O'Brien Street, it has connectivity to Blackpool village via Hatton's Alley Lane. The site also has the potential to create new linkages. These could include a new link from the community center. Such linkages could also be created between the tiers in the form of steps along the northern boundary. There is potential to link to an existing lane now disused. Other enhancement can include enlarging the community center carpark, so it is less cramped.

4.3 LAYOUT/DISTINCTIVENESS/VARIETY

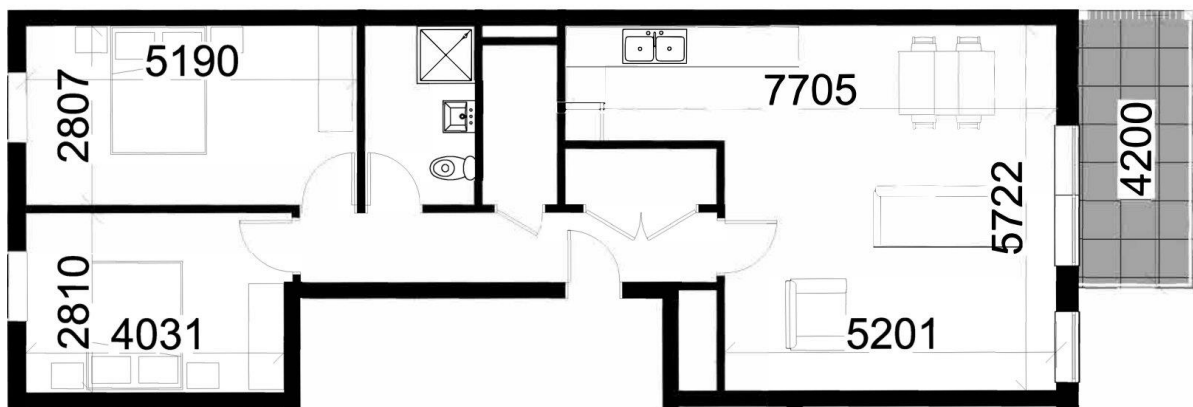
The scheme is characterized by the three distinct zones of development with a variety of material choices and design approach for each zone.

Upper tier – Apartment Complex

The upper tiered site provides a new purpose-built apartment complex. The building has been designed to a Design Brief from Cluid Housing Association. The optimum number of apartments in a Cluid development is 35-36 units. This optimization was achieved within this singular building.

The design brief for this project has provided 34 no. apartment units, each with core access and typically dual aspect. Typically, the apartments are “through apartments” with bedrooms facing west onto Lover’s Walk and living spaces addressing the view over the valley to the east. Corner units also benefit from having a southern orientation. The building is laid out over 4 storeys with surface parking and green space.

This typology, mix and scale of building is specifically designed for a housing association. The units are designed to meet current space standards. Typical 2-bed apartments average 80sqm. This allows for generous living areas, bedrooms, storage as well as generous balconies at upper floors and patios for ground floor units. On-street parking is proposed on Lover’s Walk together with a new parking area to the rear. A communal green open space is provided, and this is complimented by the embankments which are to be heavily landscaped in response to the landscape protection zone.



Typical 2 bed Apartment

Middle Tier - Houses

The middle tier is an area for future development.

Lower tier

The lower tier contains a sheltered housing complex. The building is laid out over 4 floors. Each floor has typically six units arranged along an internal ‘street’ corridor which links to a stair and lift. The ‘street’ enhances the common areas by creating social space for residents. At the ground floor a large common room is provided and at second floor a common terrace

is provided for residents. This complex contains 20no. units over four floors. These units are all typically 1 bed apartments with 3 no. 2-bed units. They have been designed to meet an 'ageing in place' strategy. There is a common day rooms at ground floor.

4.4 EFFICIENCY

Each zone is designed efficiently to maximise use of the available space on site. Roads and circulation spaces are kept to a minimum to ensure the maximum amount of Public Open space can be utilized. The apartment and housing units are designed in compact regular shapes to achieve a low perimeter to area ratio. Existing landscape features and topography has been exploited to maximize efficiency both in terms of construction and design.

4.5 PUBLIC REALM

All three tiers respond to the context of the tight urban infill site and enhance the public realm in distinct ways. The upper tier apartments address Lover's Walk with street access from the ground floor apartments to maintain the streetscape character. The massing of the apartments reconciles a strong building line and resolves the disjointed nature of the development at present.

The middle tier site is an area for future development and maintains and enhances the landscape buffer zone that is currently inaccessible on the site.

The lower tier development has less of a public presence due to its landlocked nature.

In terms of Anti-social Behavior, the development has single point access to each tier. All green areas are overlooked and provided as private green opens where possible, rear gardens are protected. Remote parking is provided immediately adjacent to the residential units with good passive surveillance. Access to landscape protection zones is to be restricted other than for maintenance. Linkages between tiers is to be limited to the northern boundary and has the potential to be gated. The division of the scheme mitigates the scale of development.

4.6 ADAPTABILITY

All units have been designed to facilitate future adaptability. The design endeavors to ensure that dwellings can meet the changing needs of occupants over their lifetimes, including needs associated with moderate mobility difficulties and the normal frailty associated with old age. Older people or persons with moderate disabilities, who wish to remain independent in their own home, should be able to do so without the need for costly and disruptive remodeling of the dwelling.

4.7 PRIVACY & AMENITY

Landscaping

The site is to be extensively landscaped. The landscape follows the pattern of development which consist of layering zones of buildings and zones of soft landscaping. In this way trees are provided on terraced escarpments to provide a layer of greenery.

Planting

The predominant tree type proposed are trees which are ubiquitous in the Irish landscape, such as Scotts Pine, Rowan, Hawthorn. Other specimen trees are proposed on the greens with small trees that grow to the scale of a house are located closer to the building such as blossom trees. The sunken courts incorporate a tiered retaining planter, which has low shrubs.

4.8 TRAFFIC AND PARKING

Roads Standard:

The external works are to be carried out to meet current site development works standard. Roads are typically 6m wide with dedicated turning areas. Footpaths range from 1.5m to 2m wide. The roads and paths slope at betweenm 1 in 12 and 1 in 21 providing gentle slopes throughout.

Roads have been designed with the aid of the “Design Manual for Urban Roads and Streets” (DMURS) published by Department of Transport, Tourism and Sport. The DMURS aims to aid the design of safer, more attractive and vibrant streets which will generate and sustain communities and

neighbourhoods. As well as cars and other vehicles this encompasses pedestrians, cyclists and those using public transport. All roads within the development will be cul de sacs.

The road surfaces will be formed from macadam with footpaths formed from concrete.

The proposed roads and footpaths within the site will be taken in charge by Cork City Council following completion of the works given that this will be a social housing project.

Utility and emergency access:

All roadways are provided with suitable access for refuse vehicles and fire trucks.

Car Parking:

For the upper tier apartments 36 parking spaces are provided on-site and on-street. In addition 1 no. disabled parking space is provided on-site at the rear and 1 no disabled parking space is provided on-street.

The lower tier sheltered housing is provided with wheelchair accessible and set down parking.

Bicycle Parking:

Bicycle parking is proposed in the rear parking area of the upper tier.

4.9 DETAILED DESIGN

The upper and lower tier apartment blocks will be built using a mix of Reinforced Concrete and concrete blockwork construction, with prefabricated concrete floor and roof structure. Please refer to Punch Consulting Engineers Report for detailed structural information.

Materials

The external building material consists predominantly of blue-grey brick walls and complimentary painted metalwork for projecting canopies balconies and glazing. Boundary and retaining wall treatment is finished in concrete masonry. This limited palette of robust materials gives the scheme its simplicity and continuity.

Energy Use

Building Energy Rating Certificates will be required for each unit in this development. The Building Regulations will require a A3 rating in this regard. An energy assessment will be carried out at the detail design stage to demonstrate compliance with TGD Part L. Of note, measures include solar panels as a suitable renewable, increased thermal insulation, higher thermal performance windows and doors, elimination of cold bridging, and airtight construction together with low energy lighting and controls will be incorporated into the development.

5 SITE SERVICES

5.1 STORM WATER DRAINAGE

Currently Storm water drainage from the site is primarily by infiltration to ground with certain volumes running off at low level into the Hattons Alley Lane site at the bottom of the site. The existing runoff from the site finds its way into the existing combined sewer network on Hatton's Alley Lane.

It is proposed to install 2 no. storm water soakaways to deal with stormwater generated on the site. Runoff from the top tier of apartments fronting onto Redemption Road will be transferred to a soakaway to be located to the rear of the apartments in what is proposed to be a green area.

Runoff from the bottom apartment block (Eastern network) is to be collected in a separate soakaway adjoining the proposed building. As the bottom block of apartments will be piled, there will be no danger of the soakaway having a detrimental effect on the building sub structure.

Stormwater discharge from the site will be limited to the 1 in 30-year greenfield runoff rate. The greenfield runoff rate was calculated separately for the two separate drainage networks on the site. The calculations were based on an IH124 Greenfield Runoff rate calculation for the area using a SOIL value of 0.4, based on the shallow depth of rock and the steep gradients at much of the site. A SAAR value of 1,200mm was used in the calculation of the greenfield runoff rate.

For the western network (Upper tier) on the site the runoff rate was calculated as 7.6l/s, and for the eastern network (lowest tier) of the site the runoff rate was calculated as 1.3l/s.

The storage capacities of the three soakaways tanks have been calculated as part of the overall drainage design. To ensure that there is no flooding in the 1 in 100-year rainfall event with a 20% allowance for climate change, attenuation tanks will be provided.

5.2 FOUL WATER DRAINAGE

It is proposed to connect the foul water drainage from the top tier of the site to the combined sewer which flows southwards along Redemption Road. The existing Glen View House is connected to an existing manhole on the footpath south of the proposed entrance to the site. It is proposed to reuse this pipe if it can be proven to suit the purposes of the new development.

The foul water waste from the bottom level tier comprising of the sheltered housing apartments will be disposed of to the combined sewer on Hattons Alley Lane.

The basic approach adopted for the design of the proposed foul water drainage is to connect each proposed unit to a proposed foul sewer system running through the proposed development, following the route of the access road and discharging ultimately towards the existing combined sewer. It is proposed that foul drainage from each unit will connect via 100mm diameter branch lines.

5.3 WATERMAIN DESIGN

A pre-enquiry form has been submitted to Irish Water with respect to the required water connection. A confirmation of feasibility has been received from Irish Water. It is proposed to make a connection to the water supply network at both ends of the site at Redemption Road and Hattons Alley Lane with the main snaking its way through the development.

Generally, it is required by Irish Water that a 'ring main' setup is constructed to allow for the network to be partially isolated in the event of a leak or breakage. Due to the geometry and constraints of the site and the proposed development layout, it is considered that the requirement for a ring main has been satisfied. A 100mm diameter main is proposed for the site, although this is open to review by Irish Water.

Fire hydrants have been included in the design for the site layout. These have been positioned such that all proposed dwellings have a fire hydrant within 46m as per the Irish Water standard detail requirements.

Please refer to Punch Consulting Engineers Report for further information on Site Services.



View from Great William O'Brien St.



View from Hattons Alley

END.